

AMENDMENT TO THE CLAIMS

A listing of the claims presented in this patent application appears below. This listing replaces all prior versions and listing of claims in this patent application.

Please amend the claims as shown below:

1. (Currently Amended) A dental instrument comprising:

- (a) a hollow shank having, a rearward fitting, and a forward head including a contact region and a window in proximity thereto;
- (b) said contact region being adapted for cutting, scraping, and/or grinding dental tissue;
- (c) a source of laser energy in the low infrared spectrum approximately from 600 nm to 1100 nm;
- (d) said window being transmissive with respect to said laser energy; and
- (e) a fiber optic bundle extending from said source of laser energy, through said fitting and said shank for communication with said window;

(f) said dental instrument enabling a dental professional to subject a surgical site simultaneously to (1) ~~said mechanical~~ cutting, scraping and/or grinding, and to (2) said laser energy for trimming and cauterizing ~~eauterization, for simultaneous removal of~~ to remove diseased tissue and ~~destruction of~~ to destroy residual bacteria.

2. (Currently Amended) The dental instrument of claim 1, wherein said contact region is a sickle scaler for removing supragingival plaque and calculus, said sickle scaler having a flat surface with two cutting edges that converge at a cutting tip.

3. (Currently Amended) The dental instrument of claim 1, wherein said contact region is a curette for subgingival scaling, root planing, and soft tissue debridement, said curette having cutting edges that are set at ~~approximately~~ approximately a 90 degree angle with respect to the axis of the shank.

4. (Currently Amended) The dental instrument of claim 1, wherein said contact region is a hoe scaler to aid in calculus and diseased cementum removal.

5. (Currently Amended) The dental instrument of claim 1, wherein said contact region is a chisel scaler to aid in calculus and diseased cementum removal.

6. (Currently Amended) The dental instrument of claim 1, wherein said contact region is a file scaler to aid in calculus and diseased cementum removal.

7. (Canceled).

8. (Currently Amended) The dental instrument of claim 1, wherein said laser energy is produced by at least one solid state diode laser in the approximate vicinities of 870 nm and 930 nm.

9. (Currently Amended) A dental process for applying a dental instrument to a surgical site comprising:

(a) a hollow shank having, a rearward fitting, and a forward head including a contact region and a window in proximity thereto;

(b) said contact region being adapted for cutting, scraping, and/or grinding dental tissue;

(c) a source of laser energy;

(d) said window being transmissive with respect to said laser energy; and

(e) a fiber optic bundle extending from said source of laser energy, through said fitting and said shank for communication with said window;

(f) said dental process including the steps of subjecting a the surgical site simultaneously to (1) said ~~mechanical~~ cutting, scraping and/or grinding, and to (2) said laser energy for trimming and cauterization, ~~for simultaneous removal of~~ to remove diseased tissue and ~~destruction of~~ to destroy residual bacteria;

(g) said laser energy being produced by at least one solid state diode laser in the low infrared spectrum approximating 600 nm and 1100 nm, ~~able to fully penetrate any periodontal pocket, cementum, and surrounding bony architecture.~~

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10. (Currently Amended) A process for performing dental surgery with an instrument comprising:

(a) a hollow shank having, a rearward fitting, and a forward head including a contact region and a window in proximity thereto;

(b) said contact region being adapted for cutting, scraping, and/or grinding dental tissue;

(c) a source of laser energy;

(d) said window being transmissive with respect to said laser energy; and

(e) a fiber optic bundle extending from said source of laser energy, through said fitting and said shank for communication with said window;

(f) said dental process including the steps of applying said instrument to subject a surgical site simultaneously to (1) said ~~mechanical~~ cutting, scraping and/or grinding, and to (2) said laser energy for trimming and cauterization, ~~for simultaneous removal of~~ to remove diseased tissue and ~~destruction to destroy of~~ residual bacteria;

(g) said laser energy being generated by at least a diode laser in the approximate range of 870 nm and 930 nm.